

INITIAL STATEMENT OF REASONS

AMENDMENTS TO REGULATIONS IN TITLE 2, DIVISION 3, CHAPTER 1, ARTICLE 5.5 OF THE CALIFORNIA CODE OF REGULATIONS.

The following is the initial statement of reasons for each of the regulations. Prior to the explanation for the necessity for each provision, the text of the regulation is set forth indented.

THE SECTIONS TO BE AMENDED ARE:

SECTION 2561(o)
SECTION 2563
SECTION 2564
SECTION 2565
SECTION 2566
SECTION 2567

SPECIFIC PUPOSE OF THE PROPOSED ACTION

The specific purpose of the proposed regulatory action is to amend sections 2561, 2563, 2564, 2565, 2566 and 2567 of Article 5.5 in order to ensure consistency with recently approved California Building Standards under 24 CCR Chapter 31F, Division 1 through 11, entitled "Marine Oil Terminal Engineering and Maintenance Standards" (MOTEMS). These latest standards represent advances in technology and improvements in standards. The proposed amendments would incorporate by reference certain specific requirements of the MOTEMS pertaining to pipeline testing and maintenance.

NECESSITY

Section 8755 of the Public Resources Code (PRC) requires the State Lands Commission (the Commission) to adopt rules, regulations and guidelines for the safe operation of all marine terminals within the State of California. PRC §8756 directs the Commission to periodically review the regulations and accordingly modify them to provide the best achievable protection of the public health and safety, and the environment. The proposed amendments would ensure that the provisions of PRC §8756 are met.

The proposed amendments to Article 5.5 will ensure that the requirements therein would be consistent with the building standards in the MOTEMS.

Subsection 2561(o), of the regulations cites the "National Association of Corrosion Engineers" (NACE) publication recommended practice RPO 169-92. This publication is the 1992 edition. NACE have since revised their standard RPO 169, the most current edition being the 2002 edition. This citation in subsection 2561(o) needs to be updated

so as to be current. A photocopy of the 2002 recommended practice is enclosed in the Appendix to this rulemaking file and will also be available for public viewing in the office of the Commission at Long Beach, California.

Commission staff has been monitoring the processes of marine oil terminal pipeline testing and evaluating the test results since 1997. The staff has gained considerable experience in identifying the causes in pipeline testing procedures that lead to inconclusive test results. This also results in wastage of effort and money of the terminal staff and their contractors. Inconclusive results do not ensure the best achievable protection of the public health and safety, and the environment. Advancement in technology has made it possible to use high resolution test equipment. The experience of the Commission staff over the years has made it possible to re-engineer existing testing procedures. The proposed modifications in testing processes do not change the existing performance standards, but they will make the test results more accurate and reliable.

Commission staff has widely publicized the proposed modifications by making presentations on this subject at Customer Service Meetings. The audience at such meetings includes marine terminal operators and representatives of pipeline testing entities.

PURPOSE OF THE REGULATIONS

The purpose of these regulations is to ensure that marine terminal pipelines are tested and maintained in a manner that does not give rise to a threat of ruptures or leaks due to defect or corrosion and subsequent discharge of oil at the marine terminal or into the marine waters of the state. Any pollution in marine waters can have serious harmful consequences on the environment, ecology and public health. Therefore these regulations are periodically reviewed and accordingly modified by Commission staff to ensure the best achievable protection of the public health and safety and the environment.

TECHNICAL, THEORETICAL AND /OR EMPIRICAL STUDY OR REPORTS OR DOCUMENTS

The staff of the Commission relied on their own experience, knowledge and determination made from the test results. The staff of the Commission did not rely upon any other technical, theoretical, or empirical studies, reports or documents in proposing the adoption of amendments to the regulations.

REASONABLE ALTERNATIVES TO THE PROPOSED AMENDMENTS TO THE REGULATIONS AND COMMISSION'S REASON FOR REJECTING THOSE ALTERNATIVES

No other alternatives were presented to or considered by the Commission. The amendments proposed fulfill the legislative intent of the statute. There will be no change in performance standards as a result of these amendments.

REASONABLE ALTERNATIVES TO THE PROPOSED REGULATORY ACTION THAT WOULD LESSEN ANY ADVERSE IMPACT ON SMALL BUSINESS.

The Commission finds that the adoption of these amendments will not have a significant adverse economic impact on small businesses. The Commission has not identified any alternatives that would lessen any adverse impact on small businesses.

EVIDENCE SUPPORTING FINDING OF NO SIGNIFICANT ADVERSE ECONOMIC IMPACT ON ANY BUSINESS

The Commission has determined that these regulations do not affect small businesses as defined in Government Code (Gov. C.) Section 11342.610, because all affected businesses are maritime oil transportation and terminal owners and operators, as specified under Gov.C. Section 11342.610(c) (7), having annual gross receipts of more than \$1,500,000.

Article 5.5. Marine Terminal Oil Pipelines

(Only those sections that are being modified are presented here)

§2561 Definitions.

- (o) “Standard Cathodic Protection System” or “SCPS” means an external corrosion control system used on underground or submerged metallic piping systems that is in conformance with and meets the criteria of the National Association of Corrosion Engineers (NACE) Standard RPO 169-92 2002, Item No. 53002 21001, ~~revised April 1992~~ reaffirmed 2002-04-11; published by NACE, ~~P.O. Box 218340~~, 1440 South Creek Drive, Houston, Texas 77218-8340 77084-4906.

The NACE publication cited in the above definition is the 1992 edition. The current edition of this publication is the 2002 edition. The text referring to the outdated edition is being struck out and the new text referring to 2002 edition is added in underline.

There are no substantive differences between the provisions of the 1992 and 2002 editions.

§2563 Design, and Construction and Maintenance.

- (a) Any repairs, alterations or modifications to existing transfer pipeline systems shall meet the design and construction criteria specified in Subparts C and D of Part 195 of Title 49 of the Code of Federal Regulations.

- (b) Every new transfer pipeline installed after these regulations become effective shall be designed and constructed in accordance with Subparts C and D of Part 195 of Title 49 of the Code of Federal Regulations.
- (c) Each component of a pipeline which is exposed to the atmosphere shall be coated with material suitable for protecting the component from atmospheric corrosion.
- (d) In addition to the requirements of subsections (a), (b) and (c) of this Section, the design, construction and maintenance of all marine terminal oil pipelines shall conform to the provisions of Divisions 9 and 10 of Title 24, Chapter 31F of the California Code of Regulations.

The first proposed change in §2563 is in the title. The existing provisions of this section were included under three subsections. A fourth provision has been added to this section in subsection (d). This addition makes it necessary to change the title of the section. The provisions for “design and construction” are included in subsections (a) through (c), and the addition of subsection (d) adds a provision concerning “maintenance.”

The California Building Standards Commission approved the “Marine Oil Terminal Engineering and Maintenance Standards” (MOTEMS) on January 19, 2005. The standards are filed under 24 CCR Chapter 31F, Division 1 through 11 and became effective on February 6, 2006. MOTEMS has certain provisions pertaining to the maintenance of marine oil terminal pipelines under Divisions 9 and 10. Some of these provisions are not addressed in the federal requirements under 49 CFR Subparts C and D of Part 195. Commission staff believes that the addition of the MOTEMS by reference in Article 5.5 will reinforce those requirements that a terminal operator must comply with for testing and maintenance of their oil pipelines. The addition of the reference here will also prevent unnecessary cross-reference between two or more sets of regulations.

§2564 Schedule for Static Liquid Pressure Testing.

- (a) (1) No operator may operate any pipeline or pipeline system governed by this Article unless it has successfully completed an SLPT as specified in Section 2565, in accordance with the schedules prescribed in this section.

This modification is a change without regulatory effect. Because an additional requirement is added to subsection (a) of §2564, it is necessary to divide this subsection into two subsections (a) (1) and (a) (2).

- (2) All pipelines that do not have a valid certified SLPT certificate shall conform with and be marked in accordance with the provisions of

subsections 12 and 13 of Section 3109F.2, Division 9 of Title 24,
Chapter 31F of the California Code of Regulations

The provisions of subsection (a) (2) are a new requirement. Subsection (12) of MOTEMS Division 9 provides that pipelines that do not have a valid and certified Static Liquid Pressure Test shall be marked "OUT OF SERVICE". Out-of-service piping and pipelines shall be purged, gas-freed and physically isolated from sources of oil. Subsection (13) provides that if a pipeline is "out-of-service" for 3 or more years, it will require Division approval prior to re-use. These requirements are incorporated by reference here in Article 5.5 to remind marine terminal operators of these requirements. This incorporation here prevents unnecessary cross-reference between two or more sets of regulations.

In protecting the public health and safety and the environment, it would be a judicious preventive measure if all pipelines that have no valid test certification be marked "OUT OF SERVICE." This would serve as a warning against their being inadvertently used for oil transfers. As a further preventive measure, if pipelines were out-of-service for 3 or more years, they would require Division approval prior to their use. Pipelines which are not in use are susceptible to corrosion and deterioration. Before using them after a prolonged period of not being used, the Division may require other tests such as electronic verification of corrosion and pipe wall thickness measurements.

- (i) In all cases where a liquid hydrocarbon is used as a test medium, the terminal operator shall provide the Division Chief with the liquid bulk modulus and coefficient of thermal expansion of the test medium at least three working days prior to the test.

Subsection (i) is a new provision added to §2564. The regulations in Article 5.5 permit an operator to use water or other liquid medium for conducting static liquid pressure tests (SLPT) on pipelines. Generally, if water is not used, a liquid hydrocarbon is used for testing. In the past, many SLPTs have been conducted with liquid hydrocarbons. However, when calculations are made to verify the SLPT results, testing companies have either ignored the physical properties and characteristics of the liquid medium or have used the properties of water. This leads to inaccuracies in the SLPT results. Commission staff have reviewed several SLPT results and found them to be inconclusive or inaccurate because the physical properties of the liquid medium used have not been taken into account. The new requirement here will ensure that SLPTs are conducted correctly and that the properties of the liquid medium are accounted for in calculating test results. §2566 of Article 5.5 requires operators to notify each Division field office of certain information pertaining to SLPTs of pipelines at least three working days prior to testing. The above requirement would be an extra item of notification for the operator. In the event a liquid hydrocarbon is to be used in testing, the operator would be required provide the Division with the physical properties (the liquid bulk modulus and coefficient of thermal expansion) along with the other items to be notified. This requirement would enable Commission staff to ensure that the proper procedures and calculations have been utilized in conducting SLPTs. If Commission staff has this

information prior to testing, they could witness testing and ensure that SLPTs have been conducted in a proper manner. This would also prevent expensive retesting of pipelines. Retesting of pipelines involves a considerable period of time in testing including down time when pipelines will not be available for use.

§2565 Static Liquid Pressure Testing.

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(d) Test Temperature Data.

- (1) ~~Where circumstances permit, test~~ Test temperature data shall be recorded as prescribed in the following subsections (d)(1)(A), (B) and (C):

The original text of this subsection included the language “Where circumstances permit” in relation to the recording of SLPT test temperatures. Since August 1997, when Article 5.5 initially became effective, Commission staff has gained considerable experience in the conducting of SLPTs at marine oil terminals under its jurisdiction. The Commission has 41 marine oil terminals in California under its jurisdiction at which pipeline testing is conducted. It is the experience of Commission staff that there are no terminals or circumstances where the recording of test temperature data is not possible. As such, the Commission believes that the language “Where circumstances permit” is no longer appropriate and needs to be removed from the text of subsection (d) (1).

- (A) A temperature recording device shall continuously record the internal test medium temperature versus time during the test. The temperature recording device shall be calibrated prior to every test and have a resolution of plus or minus 0.1 degree Fahrenheit for a water test medium or plus or minus 0.01 degree Fahrenheit for any hydrocarbon test medium. The range of the recording device shall be suitable for anticipated temperatures.

The accuracy of an SLPT result depends largely on the temperature and change in temperature of the liquid test medium during the test. PRC §8756 directs the Commission to periodically review the regulations and accordingly modify them to provide the best achievable protection of the public health and safety, and the environment. Currently, there are digital thermometers with recording facilities that have a resolution of plus or minus 0.01° Fahrenheit. Recently, some testing companies have used such equipment when conducting SLPTs. Commission staff has witnessed the use of digital thermometers and believe that their use in SLPTs will be in conformity with the provisions of PRC §8756 in achieving the best achievable protection of the public health and safety, and the environment by using the best available technology. The text of subsection (d) (1) has been modified to specify the resolution of temperature recording device.

- (B) The ambient air temperature, wind speed, precipitation and cloud cover shall be recorded at the same interval the deadweight pressure readings are taken.

An SLPT is performed for a minimum period of four hours. During that time, the ambient air temperature will change because of meteorological changes. The ambient temperature will also affect the pipeline shell temperature and the test liquid medium temperature. The original requirement in this subsection was to record the ambient air temperature simultaneously with the pressure readings. Commission staff believes that the recording of only the ambient air temperature is insufficient to determine the accuracy of test results, especially if tests were conducted during alternating periods of rain, sunshine, twilight and darkness. Such conditions cause changes in pipeline shell And liquid test medium temperatures. When Commission staff review SLPT results, if unexplained temperature changes occur during the test, the recording of wind speed, precipitation and cloud cover would enable reviewers to make allowances for such meteorological changes in assessing the accuracy of the tests. The text of subsection (B) has accordingly been modified to include the requirement to record wind speed, precipitation and cloud cover at the same intervals as the pressure readings.

- (C) The pipe wall temperature shall be recorded at the same interval the deadweight pressure readings are taken.

- (2) In circumstances where the test temperature data cannot be recorded as required by subsection (d)(1) of this section, temperature measuring devices shall be placed so as to provide representative sample temperatures of test medium, ambient air and pipe wall. Resolution of instruments to measure temperature of pipewall or test medium shall be as specified in subsection (d) (1) (a) of this section. Pipewall temperature measuring probes shall be appropriately located, be firmly attached to the pipewall and insulated so as to minimize influence from ambient temperature and solar radiation.

There are two proposed changes to this subsection. The first change reminds the operator of the accuracy or resolution of the thermometers to be used for testing. The second change requires the temperature probes to be firmly attached to the pipewall so as to record the correct temperature of the pipewall. The probe for measuring temperature should also be insulated (adequately covered) so that it is not affected by either the sun's rays or chilly winds or falling rain. Both these requirements address the accuracy of test temperature measurements.

§2566 Notification Prior to Testing; Observation of Tests.

- (a) Notwithstanding any other statutory notification requirements, each operator shall notify the local area Division field office at least three working days prior to

conducting any SLPT. The notification shall include all of the following information:

- (1) The name, address, and telephone number of the operator.
- (2) The specific location of the pipeline section to be tested and the location of the test equipment.
- (3) The date and time the test is to be conducted; ~~and~~

This change is a change without regulatory effect. The addition of a new subsection (5) to this section necessitates the striking out of the word “and” and replacing it at the end of the text of subsection (4).

- (4) The name and telephone number of the person responsible for certification of the test results; and

This change is a change without regulatory effect. The addition of a new subsection (5) to this section necessitates the striking out of the word “and” and replacing it at the end of the text of subsection (4).

- (5) The information regarding the physical properties of the liquid hydrocarbon test medium specified in subsection (i) of section 2564.

This change is merely the repetition of a new requirement in §2564(i). This section 2566 specifies the notification requirements. The addition of the new requirement here will serve as a ready reminder for terminal operators of all the items that need to be notified to the Commission’s Marine Facilities Division.